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Dissertation on counter-irritation.

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XVIII.

Dissertation
on
Counter-irritation.

By
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of Killingly, Connecticut,
Candidate for the Degree of Doctor in Medicine.



Counter-irritation (from counter & irritation)

(This term, which is of recent introduction, "has been adopted in medicine to designate any irritation artificially established with a view to diminish remove check or counter act some other irritation or inflammation existing in the system = Counter irritant" are generally employed Externally = Yet we have medicines that irritate & stimulate internally, as Emetics & Purgatives & their efficacy doubtless in a measure depends upon the counter irritation which they produce," but, in this dissertation we shall confine ourselves wholly to external counter irritation. The employment of counter irritation in the practice of medicine is not recent, but when & where this mode of medication first had its origin & how it became adopted in the treatment of disease in my investigations I have been unable to ascertain. It doubtless was in vogue or employed in the earliest ages & in all probability was first adopted for animal nature's exasperation for it is no uncommon thing to see some long established functional disease subside or disappear upon the appearance of a cutaneous eruption: much like that produced from counter irritation. This occurs more common in sub inflammatory affections of the mucous membranes, but numerous examples are recorded, where Mania, Paralysis & Chorea

have in a like manner disappeared on the coming out of an eruption - thus establishing the supposition that from nature's example and adopted the employment of counter irritation & with what results will be in a measure hereafter shown, I am enabled that we understand & correctly estimate the advantage to be derived from the employment of counter irritation it becomes necessary for us to enquire into the curative principle & the laws on which this influence depends (unfortunately, however our enquiries are restricted by the limits of our knowledge as it regards irritation & inflammation in general - but sufficient maybe obtained to guide us in the employment of counter irritation)

"Counter irritation - produced by irritant which cause no effusion or discharge owe their efficacy doubtless to the direct impression which they produce upon the extremities of the nerves. This impression being reflected through the system by sympathy or some other way & either by diminishing or changing the morbid action of the affected part" certainly does much to the removal of the disease & restoration of the system.

Those counter irritants which produce an effusion or discharge owe their efficacy not only to the irritation which they cause but to their evacuant properties also - hence we find this class of remedies not only employed in the treatment of certain diseases -

Counter irritation

as counter irritants - but as local depletions Remedies of this order in the practice of medicine are held in high estimation & deservedly so, for in the treatment of diseases their beneficial effect have been neither slight nor easy. They first draw off the irritability from the diseased part, then exhaust it either by an effusion of serum, or a discharge of pus. Dr Rush says there is a time in all fevers when a blister may be applied with advantage - this time I do not pretend to point out. The same gentleman also remarks it is necessary in high inflammatory disorders that the lancet should precede the use of blisters - or in his words the system brought to that condition where translocation will take place. It is an established fact now I believe & acknowledged by all writers that in pure tonic action of the system, that bloodletting & other means should be employed to depress the general excitement & irritability of the circulation previous to the adoption of counter irritation - also that their application is not to near the seat of inflammation or irritation & the excitement which they produce fall in with the disease & render it worse - by observing these cautions I think the use of counter irritation will be ^{rarely} followed with ~~any~~ bad consequences - unless there are peculiarities of the constitution which will not tolerate the

Counter irritation

of blood owing to the excessive pain & constitutional effect, which they occasion - which will again be adverted to in speaking of vesicants. Having now given the signification of the term Counter-irritation & limited ourselves to external counter irritations in as brief manner as possible spoke of the curative influence of counter irritants & the laws on which that influence depends without attempting to give any definite exposition of the manner in which this influence produced its curative effects - but simply stated the most probable manner in which these irritants acted which produced no effusion or discharge then in a like manner considered those which do occasion a discharge or an effusion. Then gave the general rule in regard to that state of the system in which they (counter irritants) were inadmissable. We will now proceed to consider the most prominent remedies which are employed for the purpose of producing counter irritation & most of the diseases in which they have been employed.

For the purpose of convenience & advantage we will consider the counter irritants according to their degree of activity? commencing with those that are the most mild & thence on ward until we arrive at the most profound - Rubefacients - Any application which excites a mere increase of action in the

Counter irritation

capillaries of the skin accompanied with a blush or redness terminating in complete resolution & not unfrequently in desquamation of the cuticle is called rubefacient. — But frequently when extensively employed are general stimulents as well as local excitants — therefore they may thus be adopted when there is general torpidity of the surface accompanied with a sense of coolness

When such a state of the system exists their adoption will be followed with the happiest effects they will equalize the excitement by diverting the blood from the internal organs to the surface thus bringing the system to that point in which remedies will produce their effect. In high tonic action or where a general phlogistic state of the system prevails they must give place to the more active — which in inflammation and of organs coming on in the progress of fever & those dangerous rather from their seat than extent they are remedies of the highest utility they have been found serviceable in chronic inflammation of the mucous membranes also in nervous affections particularly those of a spasmodic kind especially when affecting the stomach & bowels in various anorectic pains they have proved beneficial — such as paralytic of an nerves as well as an inflammatory character — as the tooth ache ear ache also where there is burning or slight soreness of parts

Counterirritation

They have been employed with much satisfaction

When there is great depression of vital power as in Typhus fever. Asptogen &c. rubefacients are of the highest value the general stimulus which they produce tends greatly towards a removal of the disease

They are remedies you can rely upon. They are to use the expression of the learned Prof of Physic in this Inst. like the Irish man & the salute which never misfires. The remedies employed to produce this degree of Counterirritation are numerous. I shall merely mention the most prominent without dwelling upon them for should I detail to you the just mode of preparing & applying & the individual cases in which they have been employed & the exact stage & withal the effect it would occupy more time & space than we could devote to the whole discourse. Therefore we will proceed to enumerate in as brief manner as possible - The one most general employed as rubefacient is the mustard paste (the common emulsion) this is active energetic & where a rubefacient effect is desired of this kind it is one of the most eligible we can employ. Some prefer the paste mixed with spg (Sassafras) as being more active - it doubtless does by extracting the essential oil in which the stimulating quality of the seed resides. Dr. Wes recommended the

Counter irritation

following as being speedy & effectual. Aqueous
Spts. Iodine is a caustic ammonia is mund
making. a paste of that betwixt 100 & 150. either
dry or moist is capable of producing this degree
of irritation. so the essential oils & spirits also
ether, pepper. the strong alkalies. & the strong
acids diluted. the weak concentrated & the
strong counter irritants applied for a short time
have been used to produce this degree of irritation
A. Pluck of rowan water - a bag of. But ashes
or sand & further formed of crumbs of bread
hot vinegar & pepper have also been used
for the same purpose also. The volatile lin-
iment, & the camphorated oil. as mentioned
The Sen up seems to be the most active. Soberdoe
& Muller leaves are the most feeble. yet they
possess some efficacy & may be employed when
a mild rubefacient is called for. frictions
also produce this amount of irritation & where
there is turpion of the cutaneous exhalants
their use is attended with considerable satis-
faction. There is the Garlic. the may weed, antith's
catulus & last of others employed for the same
purpose ~~are~~ to numerous to mention. Should
to great irritation or inflammation arise
from the employment of rubefacients

Counter irritation

cold applications will be serviceable or a -
cutaneous of Hyoscyamus or Belladonna, or -
what is still better according to Prof. Sw. the
Stramonium being or, a poultice of the seeds
Having now hurriedly passed over rubefacients
we come next to the consideration of those reme-
dies, which produce counter irritation - rather
more profoundly than these, we shall demonstrate
Vesicants, The irritation or inflammation they
excite terminates in Effusion of serum In the treat-
ment of diseases blisters or vesicants are highly
valued, & rightly so, as rubefacients or simple
counter irritants they yield to Sinapisms & other
remedies of that class, but their effect as local de-
pletories gives them a superiority over all other
irritants in the treatment of, inflammation affect-
ing serous membranes, as in Pleuritis Peritonitis
&c. In chronic inflammation of the mucous me-
mbranes they have been employed with decided
utility they have also been found, useful when there
has prevailed a general irritability of the system
with fugacious pains, by localizing the irritabil-
ity & thus relieving the system. In Effusion of joints
they have proved efficacious. What has been said
of rubefacients in regard to Spasmodic disease
is equally applicable to vesicants - In inflammation

Counter irritation

affecting the parenchyma of organs. They are not so useful as the more profound, yet they are serviceable & often employed in such cases with great benefit. In inflammation of urinary organs there has been some objection raised against use of flies, as Vesicants, now, just these objections are. I leave it for you decide, which I presume experience enable you too. There is however an ethereal solution of the flies, which produces the vesicant effect fully with out exciting irritation of the urinary passages. This I obtained from Prof Luey. I know nothing of it myself having never seen it employed. There is also another method which has been adopted to produce the same I mean. to obtain the same effect of the flies - it is to place a piece of thin muslin or gauze between the surface to be blistered & the blister. I regret that I am unable to speak upon this mode of treating blisters to prevent stranguary.

The remedies or medicines employed for the purpose of vesication are not numerous. The one most usually employed is which answers the purpose. The best is the Spanish fly, the cantharis or Meloe vesicatoria. This is capable of fulfilling almost every indication for which the blister is employed. The potatoe fly has similar -

Counter irritation

properties. Yet the uncertainty of collecting them induces a prohibition to their general use. Beside the flye. we have several vegetable the juice of which produces when applied to the skin vesication — as the. Eamucalus - Cleonotis &c. I do not dwell upon ^{them} they are rarely if ever employed & when employed their effect is uncertain

What is capable of producing vesication when applied intense enough also the strong acids & some of the metallic salts. But, this mode of blistering is uncertain of tenacious manage able. The inflammation which they cause is of a diffuse character, & occasions large sloughing &c. are seldom employed in the practice of physic. for this purpose

In. Meningitis & Phrenitis where you wish to vesicate the scalp after the inflammation has been moderated by the abstraction of blood. It can be done without removing the hair or, as it is commonly termed "Shaving the head" by making a mixture of. Aqua ammonia & Iodine Can then be rubbed in thoroughly with a swab. Dr. Mosher informed me that this would thoroughly & speedily vesicate & would obviate all those unpleasant feelings which exist in the breast of friends on beholding the head shorn. It is an unseen sight & considered by them

Counter irritation

as a dernier resort & therefore, we should avoid exciting such feeling, if possible. For a speedy resuscitation, aqua. ammonia & hog's lard equal parts by weight. Thoroughly triturated, may be employed - it is said to have produced resuscitation in fifteen or twenty minutes - Should blisters excite too much pain, as they are sometimes liable to, it may be remedied by sprinkling a little powdered opium or acetate of Morphia upon the surface of the blisters previous to the application. If a blister shows a tendency to gangrene, it should be treated upon general principles as by stimulating & giving internally the bark & local applications are of service as the chloride of lime, Soda &c. should to great a degree of inflammation arise a poultice or poultice should be employed.

With these few condensed remarks I dismiss Vaccines & proceed to the consideration of the next degree as it regards power & activity.

The counter irritants hitherto referred to are such as terminate either in resolution or an effusion of serum. There is another class, which affects the texture of the skin more deeply & determines the secretion of pus. These are called pustular or Empyematous counter irritants. These remedies have been used with advantage in deep seated inflammation even of the acute kind. Therefore

Counter irritation

& frequency, of the pulse being previously moderated, in chronic inflammation, they are of decided utility & many cases, of Epilepsy, Chorea, Mania-paralytica, neuralgia & diseases, of this class have been either removed or greatly benefited. Numerous cases are recorded of the former where they have been entirely & permanently cured.

Irritants of this class, have been employed for the purpose of removing inflammation of the eyes ears, & of aneurysms which have, by continuance, engorged themselves upon the habits of the system & are very difficult to remove, in Pertussis & bronchitis of a chronic nature. They have been used with decided benefit also to retard the progress of Tubercular phthisis & with testimony in their favour & in numerous other disease, partaking of the same general character. The remedies employed for the purpose of producing this degree of irritation are but few. Tart. Emet. is one that has been more generally employed, than any other - it is generally sure in its operation & rarely proves unmanageable & can be employed whenever such counterirritation is desired. It is most commonly employed in the form of an ointment. I have found the following proportions of diarseniate to one of Tart. Emet. this is however varied according

Counter irritation

to the degree of irritation desired, an ointment of the strength of Dr. Ferris's formula will generally bring out a fine crop of pustules if a speedy effect is desired for or this ointment it can be greatly hastened by friction of the part & applying some penetrating liniment previous to the application of the oint. An aqueous solution will also produce this amount of irritation & as it leaves no marks or scars is peculiarly suited to females - who resist all medicaments that leave a trace behind - in order that if we have this degree of irritation it is recommended to have the water as warm as it can conveniently be borne, so that it may take up more of the salt & also quicken its action.

In gastritis it is improper to irritate with Turb. Emul. owing to its tendency to excite vomiting. Besides the Turb. Emul. the corrosive sublimate Iodine & the arsenious acid have all been employed for the same purpose. The corrosive sublimate has been extensively employed & is by some thought superior to the Turb. Emul. it is used in the same diseases & employed both in the form of an ointment & a solution. Dr. Keogh speaks highly of it in effusions of joints also for the purpose of discharging even malignant tumors. I know but very little of it from observation of its effects therefore do not dwell upon it. The Iodine, this has had quite a reputation in the cure of scrofulous enlargements

Counter irritation

of glaucob. Dr. Harker informs me. he has employed it with success in Prostatitis, and in one instance in the whitlow & in all probability would be serviceable in the carbuncle. Dr. Harker, from whom, I believe about twenty grains, to the ounce of Simple ointment

of the. arsenic I know of still. It is recommended as an irritant in some cutaneous tumors, it is I believe to be the base of the. Cancer ointment if employed its effects should be watched & if it effects the constitution its use should be suspended

Should to great a degree of irritation or inflammation arise during the use of Tincture of iron bread poultice may be employed which does not interfere with the progress of the pustules with these few brief remarks I leave particular irritants & proceed to the consideration of Perpetual blisters, Leucoderma & Issues. The former of these is not employed much at present. Physicians preferring rather to vesiculate from time to time than apply irritants to a blistered surface for the purpose of keeping up a discharge. therefore I do not dwell upon them. Leucoderma issues have been found serviceable in chronic inflammation, particularly of the joints they have been employed as safe guards against apoplexy, palsy & other diseases of repletion. they have been resorted to in the healing up of old ulcers which have been of long standing

Counter irritation

also in the cure of eruptive diseases which the system has been accustomed to for some length of time thus preventing any ill effects from a suppression of the natural counter irritation they have also been used for the purpose of restoring the growth of tumors & diminishing their size in Bronchocle their employment has been attended with benefit

The formation of Issues & let us I shall neglect to mention also further of their employment & efficacy We come now to the consideration of the last class which are more profound in their action more general in their operation than any here before referred to. This class is styled the counter irritating counter irritants. This mode of counter irritating is so painful & formidable that it is scarcely ever adopted. tho' the shock & the impression which is made by irritants of this class upon the system has often proved highly salutary in some instances even moribund. Dr. Muskatish I believe relate case where a woman had ovarian dropsy with inflammation of the abdomen was cured by extensive counter irritation of this kind. He relates it in the following manner, that her clothes accidentally caught fire & she was burned extensively before the fire could be extinguished. Upon recovering from her burn much to her surprise & joy she found she was cured of her disease

Counterirritation

It is much better to let accident adopt such treatment & have the reputation. than for the physician - This mode. though irritating in a high degree has been employed in hysteria & Epilepsy with some advantage. It has also been found useful in checking local spasms. Heat is applied by metallic instruments or by water at the boiling temperature or its vapor. Iron or copper heated to different degrees of incandescence is employed for the purpose of producing local irritation or sores. This is termed "actual cautery". There is another called by the surgeons "Trocenurent", which consist in passing an iron heated cherry red on the surface of the skin in parallel lines at such a space from each other, that there shall be an intervening portion free from inflammation. This mode of irritating has been adopted in enlarged joints & the remains of rheumatic affections. The severity forbids the use except in very indolent & chronic cases. Mayo has been quite celebrated in the treatment of scrofulous & rheumatic swelling of joints in chronic diseases of the Liver Kidneys & other internal organs in palsy & neuralgia it has proved more successful than any other remedy. It has been used with the best of success to promote the absorption of indolent effusion in joints cold tumors &c. The irritation produced by steam is very fine & unobnoxious. I have never seen it used - I do not dwell upon it & in leaving this I leave

Counter-irritation

In concluding the subject of counter-irritation I will
summarize it has been my object only to take it in a general
point of view without stopping to consider every
disease in which this mode of medication has been ado-
pted & the exact stage & dwelling upon every specific
virtue which has been attributed to it - but to consider
in as brief & concise a manner as possible the most noted re-
medies employed & their most prominently effects &
the diseases where this effect has appeared most
obvious & conspicuous. In doing this I have
not provided as interesting & original as I could wish
or you desire. I trust you will pardon me when
I remind you there is not a medical subject, but what
has been the "theme" of the learned & ingenious of the
profession - who have been so thorough in their inves-
tigations & so deep in research & withal so commu-
nicative, that they have nearly left a peg where on
a student can hang a discourse with any degree
of originality. (Fenner, H. Pickhame)

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